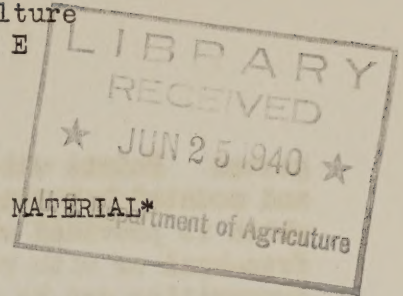


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COOPERATIVE PRODUCTION OF ILLUSTRATIVE MATERIAL*

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There are many ways of measuring the results of extension activities. Probably the best known is the one called "changed practices." Another is to figure attendance at meetings; but some folks estimate that only 1 out of 10 gets anything from a meeting and, if it is a difficult matter to put into operation, possibly only 1 in 100 will be influenced.

It has been said that the success of agricultural extension work should not be measured by how much the extension representatives or local leaders can do for the people, but by how much the extension workers can get the people to do for themselves. Nothing gets better attention and leaves a more lasting impression than a good picture. It may be a photograph in black and white or color, a still or movie or a line drawing, either perspective or working plan. Working plans, however, have to be easily visualized and often are evident to the designer but very obscure to the farmer. This may be illustrated in a reference to the fine work in the Miscellaneous Publication No. 319, "Plans of Farm Buildings for Western States." Page 29 not only shows a cross section of a proposed general barn but a perspective and a cutaway plan, which shows the lay-out of the stable after the mow had been taken off. We appreciate that Miscellaneous Publication No. 278, "Plans of Farm Buildings for Northeastern States," was prepared as a starter and it certainly was a good one. Incidentally, it costs only half as much as the first one mentioned.

Probably the speaker got this assignment because he has borrowed more illustrations from other States, and from the United States Department of Agriculture, than almost anyone else he knows. The illustrations are seldom used without working over, such as a 3-cushion davenport from Ohio State, which had too much waste space in the middle to show the electric lights at each end, and was cut down to a 2-cushion one without sacrificing any information. We have also seen photographs with negroes and mules in them redrawn as a pen and ink sketch with white men and horses, and the photograph bleached out after the sketch was outlined.

We are particularly favorable to the old standard $3\frac{1}{4}$ - by 4-inch lantern slide. It can be projected in rooms so light that the new 2 by 2 slides would not be visible. In addition, typewriting, particularly with the elite type, can be done on prepared cellophane. Amber is sug-

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gested. Points which are to be emphasized, charts, or maps can be drawn and mounted between cover glasses. This brings up another type of slide which is provided with an emulsion on which drawings can be made, either free-hand or with ruling pen, and color applied. With clear cellophane, typewriting can be added, if the sheet is made to register with the drawing. A substitute for these may be had by having your photographer dissolve the silver from old, unused lantern slides. This leaves a clear gelatine coating, which serves very well for India ink and color, if it is not scratched off the glass by too much pressure on the pen. There are many different grades of these "announcement sheets," and some give very disappointing results, particularly with the small type.

Film strips are another popular, cheap method of presenting a set lecture, but they have the disadvantages of a small slide. It is monotonous to go over the same order of illustrations and, if an attempt is made to skip some irrelevant pictures, the audience may feel slighted. The best use we have made of some film strips is to extract pictures for standard slides. However, we are using one from Iowa State to very good advantage because it is the only set of illustrations we can find which so well covers the subject. Where the film slide is to show a continuous set of operations, such as building a range shelter for poultry, and the sequence will not be changed, a very fine presentation can be developed.

Motion pictures are always an attraction but should not be prepared primarily for the entertainment of the audience. Oftentimes points can be brought out, such as the ease with which certain operations can be done, which would probably be considered hard work if seen in a still picture. There is also the trouble, in some localities, of being certain that high-line electric service is available for the operation of the projector.

In picking any subject for a still or motion picture, it should be borne in mind that the background is often as important as the subject under discussion. The impression the audience gets as to whether or not they can use the material may depend on some small item irrelevant to the talk. An instance of this is brought out with a number of drainage lantern slides taken in the Coastal Plain region, which when shown in a hilly country, made the farmers feel that they had different conditions to overcome.

The following was given at a meeting of the North Atlantic Section of the American Society of Agricultural Engineers when the building-plan book for this section was just published:

As it is our intention to make letter-page size reductions of the Northeast plans, it should be borne in mind that the speaker's remarks apply to obtaining reductions which can be used with the least effort by the farmers and builders receiving them. Our contribution to Miscellaneous Publication No. 278, "Plans of Farm Buildings for the Northeastern States," was unfortunately not on a standard size sheet as per the blueprint supplied by the United States Bureau of Agricultural Engineering

and had to be redrawn. The lettering, while done with a heavy enough pen, was not uniform in density and, while it would serve well for making rotaprints or planographs, it would not give satisfactory vandykes.

These remarks are not intended as a criticism of individual draftsmen but as a guide for all of us so that we can in the future reproduce tracings which will be of the greatest use to all concerned. These suggestions are possibly not complete, and most of the drawings show a high standard of execution. It is suggested that:

The lettering should be of simple engineering type with a reasonably heavy pen.

Any architects working on plans should know that the i's are dotted heavily, the back of the small k is as high as an l, that U's are not to be made as V's, and extra dots between words or as decorations are not desirable; J is not a T with a curl on the bottom, the cross bars of the H's should be above the center, and the S is not a sine curve but is best made like part of an 8; the P should be plain so it will not be mistaken for a D, and should have enough room to make it into an R with the tail longer than half the letter height.

In ruling lines, particularly fine ones, the right line pen should have a constant speed so that the weight of line will be uniform. Fine-dimension lines should not be so light as to break when the vandykes are made.

Dimensions should be shown clearly without unnecessarily cluttering up the drawing. It is well to locate them so that they can be easily found without too much study, and will not obscure the subject.

At corners the lines should stop sharply.

A line scale is always desirable to provide for reduction.

It is desirable to leave some blank spaces, not only for the looks of the drawing but to permit notations fitting the illustration to the farmer's needs. Blank spaces will also permit the individual States to add information particularly applicable to the building material available. For instance, hollow building tile can be obtained much more cheaply in some sections than cinder block, and where cinder block is called for, we are making the insertion for clay tile.

The use of section lines to show where cross sections are made is sometimes necessary in order to give a clear conception of the resulting drawing. However, it is often not necessary to have these lines all the way across the drawing in such a way as to confuse anyone but a trained engineer or builder.

If, in the future, we assist other subject-matter specialists in making illustrations for bulletins, it is often possible to assemble these on standard-size sheets so that they can be used in the plan service even though they may be separate illustrations in the printed publication. Cooperation from your agricultural editor and specialists in other lines will simplify matters and promote this phase of the work.

May we cooperate to the fullest extent. If there is anything we think should not be made public, let us not hesitate to say so. The guidance of those who have had the most experience in plan work should serve the rest of us who are just starting and prevent unnecessary mistakes. While each State may want to do an outstanding piece of work, I feel that we are all friends in the North Atlantic section. Some may have more State funds than others, but we owe it at least to the profession to give as much cooperation as possible so that no part of the country can show a better piece of work than that done by this section.

One of our old professors used to say that one good drawing was worth many chapters of explanation, and he would give half of his mark for the force diagram and the remainder for the calculation. He had the old idea of Confucius who is reported to have said, "One picture is equal to 10,000 words."